

WHAT IS CLAIMED IS:

1. A reluctance motor comprising:

a rotor and at least two salient stator poles wherein each of said stator poles has an exciter coil surrounding respective stator poles with one end of each of said exciter coils facing said rotor;

a spring biasing device contacting said end of each of said exciter coils facing said rotor wherein said spring biasing device provides a radially outward force on the ends of said exciter coils facing said rotor in a direction away from said rotor.

2. The reluctance motor according to claim 1, wherein said spring biasing device is at least one snap ring.

3. The reluctance motor according to claim 1, wherein said exciter coils are gripped between the spring biasing device and a yoke of the stator.

4. The reluctance motor according to claim 1, wherein each of said stator poles has a groove in at proximately the center of the end facing the rotor wherein said groove receives said spring biasing device.

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5. The reluctance motor according to claim 2, wherein in the axial direction of a yoke of the stator, at each end of the stator poles, an outwardly springing one of said at least one snap springs contacts the ends of the exciter coils facing the rotor.

6. The reluctance motor according to claim 2, wherein each of said at least one snap ring is disposed of one flat side adjacent said stator poles.

7. The reluctance motor according to claim 2, wherein each of said at least one snap ring is made of spring steel.

8. A method for the manufacture of a stator of a reluctance motor having at least two salient stator poles each provided with an exciter winding, said method comprising the acts of:

assembling sheet iron laminations of the stator;

disposing exciter windings on the assembled sheet iron laminations;

applying at least one snap ring to ends of exciter coils facing away from a yoke of the stator;

applying casting resin to the exciter coils and interstices between the exciter coils; and

curing the casting resin.

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9. A reluctance motor having a motor and at least two salient stator poles with each of said stator poles being provided with an exciter coil, said reluctance motor further comprising at least one biasing mean positioned against an end of each of said exciter coils which faces said rotor to apply a radial force to said exciter coils in a direction away from said rotor.

10. A reluctance motor according to claim 9, wherein said biasing means is a snap ring.

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